

REMARKS

I. Introduction

Claims 1 to 27 are pending in the present application. In view of the following remarks, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration is respectfully requested.

II. Rejection of Claims 1 to 27 Under 35 U.S.C. § 103(a)

Claims 1 to 6 were rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of U.S. Patent No. 5,268,140 ("Rutz") and U.S. Patent No. 5,506,199 ("Bock '199"). It is respectfully submitted that the combination of Rutz and Bock '199 does not render unpatentable any of claims 1 to 6 for the following reasons.

Claim 1 is related to a method for manufacturing a pressed part and recites annealing the pressed part in a gas mixture of inert gas **and** oxygen, a concentration of oxygen in the gas mixture being between 1% and 10% by volume.

As the Office Action admits, neither Rutz nor Bock '199 discloses or suggests an annealing atmosphere that includes a mixture of inert gas and oxygen, where the concentration of oxygen in the gas mixture is between 1% and 10% by volume. The Office Action asserts that the Specification does not show that the specific claimed concentration yields new and unexpected results. As set forth in Applicants' Response, dated June 23, 2004, the Specification discloses that it has been proved to be advantageous for the annealing atmosphere to include a certain minimum amount of oxygen, e.g., page 4, lines 4 to 8. The Specification further discloses that there is an advantage to a reduced concentration of oxygen in the annealing atmosphere, for example for improved magnetic properties of the pressed parts, e.g., page 4, lines 8 to 12. Thus, the Specification discloses an advantage to including oxygen, and not only an inert gas, within the annealing atmosphere, and at the same time, to reducing the concentration of the oxygen.

In the "Response to Arguments," the Office Action asserts that since the Specification allegedly discusses an embodiment in which the "ideal" atmosphere does not include the concentration of oxygen as recited in claim 1, therefore "it is maintained that the instant specification does not show that the specific claimed concentration yields new and unexpected results." As an initial

matter, it is noted that claim 1 is not limited to the second exemplary embodiment of the Specification. It is also noted that claim 1 is not limited to an embodiment in which two anneals are performed. It is unclear how a discussion of one embodiment that does not include a particular advantage indicates that the particular advantage does not exist. While one embodiment does not include the particular advantage, another embodiment may include the advantage. Just because one embodiment does not use an atmosphere that includes the advantageous concentration of oxygen, does not mean that it is not advantageous to use an atmosphere that does include that concentration of oxygen. Indeed, as set forth above, the Specification, at page 4, lines 4 to 12, indicates that it is advantageous to use a gas mixture that includes the concentration of oxygen as recited in claim 1.

Furthermore, the Office Action's assertion that the Specification discusses an embodiment in which the gas mixture that includes the advantageous concentration of oxygen as recited in claim 1 is not used, is incorrect. The Specification discusses two exemplary embodiments. The first exemplary embodiment is discussed at page 5, line 21 to page 6, line 31. The second exemplary embodiment is discussed at page 6, line 33 to page 8, line 4. In the first exemplary embodiment, only one annealing step is performed. For this sole annealing step, the advantageous gas mixture that includes the reduced concentration of oxygen is used. In the second exemplary embodiment, two annealing steps are successively performed. The Specification states that in the second exemplary embodiment, an annealing step is performed that is analogous to the sole annealing step of the first exemplary embodiment. For this annealing step, the advantageous gas mixture that includes the reduced concentration of oxygen is used. It is noted that air is composed of 20% oxygen. The Specification states that for this annealing step, a gas mixture is used that includes a concentration of air that is between 5% and 50%. This is equivalent to a gas mixture that includes a concentration of oxygen that is between 1% and 10%. Furthermore, the Specification explicitly states that this annealing step is performed "in a manner analogous to the first exemplary embodiment." Specification, page 7, lines 28 to 35. In addition to the annealing step that is analogous to the annealing step of the first exemplary embodiment, an initial annealing step is also performed before performance of the analogous annealing step. It is only for the initial annealing step

that the Specification discusses the use of a gas mixture that does not include the reduced concentration of oxygen.

Thus, the Specification discusses two exemplary embodiments. In both exemplary embodiments, at least one annealing step is performed as recited in claim 1, for which an advantageous gas mixture is used that includes a reduced concentration of oxygen, chosen, e.g., for the reasons set forth above.

The Office Action asserts that it would have been obvious to modify the air atmosphere in Rutz to decrease the concentration of oxygen in the air. However, prior art references must be considered as a whole, including portions that teach away from the claimed invention. W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540 (Fed. Cir. 1983). Rutz states, "[a]lthough slight increases in strength were observed for the nitrogen environment, it is unclear whether or not these increases in strength are the result of a lack of oxygen during the heat treatment step." Rutz, column 8, line 66 to column 9, line 1. Thus, Rutz clearly teaches away from reducing the oxygen concentration in the annealing atmosphere.

Although Bock '199 may discuss an annealing atmosphere of inert gas and oxygen, nowhere does Bock '199 disclose the recited reduced oxygen concentration. Neither Rutz nor Bock '199 suggests a desire for reducing the oxygen concentration in the gas mixture.

Thus, the combination of Rutz and Bock '199 does not disclose or suggest all of the limitations of claim 1. It is therefore respectfully submitted that the combination of Rutz and Bock '199 does not render unpatentable claim 1.

Claims 2 to 6 ultimately depend from and therefore include all of the limitations of claim 1. As set forth above, the combination of Rutz and Bock '199 does not render unpatentable claim 1. Accordingly, without passing judgment on the merits of the Office Action's assertions regarding the limitations of claims 2 to 6, it is respectfully submitted that the combination of Rutz and Bock '199 does not render unpatentable claims 2 to 6, by virtue of these claims' dependence on allowable claim 1. In re Fine, 837 F.2d 1071 (Fed. Cir. 1988) (any dependent claim that depends from a non-obvious independent claim is non-obvious).

Claim 7 was rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Rutz, Bock '199, and U.S. Patent No. 6,383,281 ("Bayer"). It is

respectfully submitted that the combination of Rutz, Bock '199, and Bayer does not render unpatentable claim 7 for the following reasons.

Claim 7 depends from and therefore includes all of the limitations of claim 1. As set forth above, the combination of Rutz and Bock '199 does not render unpatentable claim 1. Bayer is not relied upon for disclosing or suggesting the features of claim 1 not disclosed or suggested by the combination of Rutz and Bock '199. Indeed, it is respectfully submitted that Bayer does not disclose or suggest the features of claim 1 not disclosed or suggested by the combination of Rutz and Bock '199. Accordingly, without passing judgment on the merits of the Office Action's assertions regarding the limitations of claim 7, it is respectfully submitted that the combination of Rutz, Bock '199, and Bayer does not render unpatentable claim 7, by virtue of this claim's dependence on allowable claim 1.

Claims 8 to 13 were rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Rutz, Bock '199, and U.S. Patent No. 5,047,391 ("Bock '391"). It is respectfully submitted that the combination of Rutz, Bock '199, and Bock '391 does not render unpatentable claims 8 to 13 for the following reasons.

Claims 8 to 13 ultimately depend from and therefore include all of the limitations of claim 1. As set forth above, the combination of Rutz and Bock '199 does not render unpatentable claim 1. Bock '391 is not relied upon for disclosing or suggesting the features of claim 1 not disclosed or suggested by the combination of Rutz and Bock '199. Indeed, it is respectfully submitted that Bock '391 does not disclose or suggest the features of claim 1 not disclosed or suggested by the combination of Rutz and Bock '199. Accordingly, without passing judgment on the merits of the Office Action's assertions regarding the limitations of claims 8 to 13, it is respectfully submitted that the combination of Rutz, Bock '199, and Bock '391 does not render unpatentable claims 8 to 13, by virtue of these claims' dependence on allowable claim 1.

Claims 14 to 24, 26, and 27 were rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Rutz and Bock '391. It is respectfully submitted that the combination of Rutz and Bock '391 does not render unpatentable claims 14 to 24, 26, and 27 for the following reasons.

The Office Action asserts that Bock '391, at column 3, lines 24 to 26, discloses postforming an annealed part and re-annealing the pressed part. However, as set forth in Applicants' Response, dated June 23, 2004, Bock '391 discusses grinding a cast body, i.e., a mechanical processing of the cast body, between multiple anneals. Bock '391 does not disclose, or suggest, postforming an annealed part. In the "Response to Arguments," the Office Action asserts that the grinding discussed in Bock '391 is a postforming operation. While grinding may be performed to create or enhance a form, grinding does not necessarily do so. By grinding the cast body, the body may be ground to individual powder particles and lose all form. Nowhere does Bock '391 disclose or suggest postforming an annealed part by grinding or in any other manner. Indeed, the portion of Bock '391 to which the Office Action refers discusses a "comparison example"; not an example according to the method of Bock '391. Bock '391, at column 1, lines 31 to 41, explains that after each grinding, the powder must be re-sintered. Thus, the grinding discussed in Bock '391 does not disclose or suggest postforming a pressed part.

Furthermore, prior art references must be considered as a whole, including portions that teach away from the claimed invention. W.L. Gore & Associates, Inc. v. Garlock, Inc., *supra*. As set forth above, the portion of Bock '391 to which the Office Action refers discusses a "comparison example"; not an example according to the method of Bock '391. Indeed, Bock '391 states that the method in which the powder is ground between anneals is undesirable. Column 1, lines 48 to 51. Thus, Bock '391 clearly teaches away from grinding between anneals.

Therefore, the combination of Rutz and Bock '391 does not disclose or suggest all of the limitations of claim 14. It is therefore respectfully submitted that the combination of Rutz and Bock '391 does not render unpatentable claim 14.

Claims 15 to 24, 26, and 27 ultimately depend from and therefore include all of the limitations of claim 14. As set forth above, the combination of Rutz and Bock '391 does not render unpatentable claim 14. Accordingly, without passing judgment on the merits of the Office Action's assertions regarding the limitations of claims 15 to 24, 26, and 27, it is respectfully submitted that the combination of Rutz and Bock '391 does not render unpatentable claims 15 to 24, 26, and 27, by virtue of these claims' dependence on allowable claim 14.

Furthermore, with respect to claim 24, claim 24 recites that the annealing and the re-annealing are performed in a gas mixture of an inert gas and oxygen, and that the oxygen concentration is between 1% and 10% by volume. As set forth above in support of the patentability of claim 1, Rutz does not disclose or suggest this feature. Bock '391 is not relied upon for disclosing or suggesting this feature. Indeed, it is respectfully submitted that Bock '391 does not disclose or suggest this feature. For this additional reason, it is respectfully submitted that the combination of Rutz and Bock '391 does not render unpatentable claim 24.

Claim 25 was rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Rutz, Bock '391, and Bayer. It is respectfully submitted that the combination of Rutz, Bock '391, and Bayer does not render unpatentable claim 25 for the following reasons.

Claim 25 depends from and therefore includes all of the limitations of claim 14. As set forth above, the combination of Rutz and Bock '391 does not render unpatentable claim 14. Bayer is not relied upon for disclosing or suggesting the features of claim 14 not disclosed or suggested by the combination of Rutz and Bock '391. Indeed, it is respectfully submitted that Bayer does not disclose or suggest the features of claim 14 not disclosed or suggested by the combination of Rutz and Bock '391. Accordingly, without passing judgment on the merits of the Office Action's assertions regarding the limitations of claim 25, it is respectfully submitted that the combination of Rutz, Bock '391, and Bayer does not render unpatentable claim 25, by virtue of this claim's dependence on allowable claim 14.

III. Conclusion

In light of the foregoing, it is respectfully submitted that all pending claims 1 to 27 are in condition for allowance. Prompt reconsideration and allowance of the present application are therefore earnestly solicited.

Respectfully submitted,

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